Appendix B

An Interface Description Language File for the COIGN System

```
/////////////////////////////////////////////////////////////////////////////
//
//
//

#ifndef _COIGNIDL_IDL_
#define _COIGNIDL_IDL_

/////////////////////////////////////////////////////////////////////////////
//
import "objidl.idl";
import "oaidl.idl";
import "oleidl.idl";

/////////////////////////////////////////////////////////////////////////////
//
interface ICoignHost;
interface ICoignFactory;

/////////////////////////////////////////////////////////////////////////////
//
typedef struct _CCallHistory
{
        IID                 m_Iid;
        // 0 if function call.
        ULONG       m_nObjectClassification;                        // 0 if
function call.
        ULONG       m_nMemberFunction;                            // VA if
function call.
        ULONG       m_nStackFrame;                                // N/A,
Testing only.
        ULONG       m_nl;
} CCallHistory;

/////////////////////////////////////////////////////////////////////////////
//
[object, uuid(7e78c140-5c6f-11d1-98ff-006097b010e3),pointer_default(unique),
local]
interface IPersistBuffer : IPersist
{
    HRESULT IsDirty(void);

    HRESULT Load([in, unique, size_is(cbData)] BYTE *pbData,
                        [in] ULONG cbData);
}

[object, uuid(7e78c141-5c6f-11d1-98ff-006097b010e3),pointer_default(unique),
local]
interface IPersistBufferInit : IPersistBuffer
{
    HRESULT InitNew(void);
}
```

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```
//////////////////////////////////////////////////////////////////////////
//
[object, uuid(9ceeb054-e415-11d0-98d1-006097b010e3), pointer_default(unique)]
interface ICoignHost : IUnknown
{
        ////////////////////////////////////////////////////////// Create Factory.
        //
        HRESULT              IsAlive(void);

        HRESULT              GetHostFactory([in] ULONG nHostId,
                                        [out] ICoignFactory **ppFactory);
        HRESULT              GetHostInternal([in] ULONG nHostId,
                                          [out] ICoignFactory
**ppFactory);

        HRESULT              SetHome([in] ICoignFactory *pHome,
                                [in] ULONG nHostId,
                                [in, size_is(cbData)] BYTE *pbData,
                                [in] ULONG cbData,
                                [in] ULONG nSystemObjectToken,
                                [in] ULONG nApplicationObjectToken);
        HRESULT              ClearHome(ULONG nKey);

        HRESULT              LogData([in, size_is(cbData)] BYTE *pbData,
                                [in] ULONG cbData);
        HRESULT              ExtraData([in] const CLSID *pClsid,
                                  [in, size_is(cbData)] BYTE *pbData,
                                  [in] ULONG cbData);
        HRESULT              MessageData([in, size_is(cbData)] BYTE *pbData,
                                  [in] ULONG cbData);

        HRESULT              GetCallHistory([in] ULONG nFrameAddress,
                                      [out] ULONG *pnRecords,
                                      [out, size_is(, *pnRecords)]
CCallHistory **prgRecords);
};

[object, uuid(9ceeb056-e415-11d0-98d1-006097b010e3), pointer_default(unique)]
interface ICoignFactory : ICoignHost
{
        HRESULT              CoGetClassObject([in] ULONG nObjectClassification,
                                      [in] REFCLSID rclsid,
                                      [in] DWORD dwClsContext,
                                      /* PVOID */ DWORD pvReserved,
                                      [in] REFIID riid,
                                      [out, iid_is(riid)] void
**ppv);

        HRESULT              CoGetInstanceFromFile([in] ULONG nObjectClassification,
                                      [in, unique]
COSERVERINFO *pServerInfo,
                                      [in, unique] CLSID
*pClsid,
                                      [in] IUnknown
*punkOuter,
                                      [in] DWORD dwClsCtx,
                                      [in] DWORD grfMode,
```

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```
OLECHAR *pwszName,                                  [in, string] const

MULTI_QI/ */                                        [in] REFIID riid, /* was

**ppv);                                             [out, iid_is(riid)] void

        HRESULT           CoGetInstanceFromIStorage([in] ULONG
nObjectClassification,
                                                    [in, unique]
COSERVERINFO *pServerInfo,
                                                    [in, unique] CLSID
*pClsid,
                                                    [in] IUnknown
*punkOuter,
                                                    [in] DWORD
dwClsCtx,
                                                    [in] IStorage
*pstg,
                                                    [in] REFIID riid,
/* was MULTI_QI/ */
                                                    [out,
iid_is(riid)] void **ppv);

        HRESULT           CoCreateInstance([in] ULONG nObjectClassification,
                                [in] REFCLSID Clsid,
                                [in] IUnknown *punkOuter,
                                [in] DWORD dwClsCtx,
                                [in] REFIID riid,
                                [out, iid_is(riid)] void
**ppv);

        HRESULT           CoCreateInstanceEx([in] ULONG nObjectClassification,
                                [in] REFCLSID Clsid,
                                [in] IUnknown *punkOuter,
                                [in] DWORD dwClsCtx,
                                [in, unique] COSERVERINFO
*pServerInfo,
                                [in] REFIID riid, /* was
MULTI_QI/ */
                                [out, iid_is(riid)] void
**ppv);

        HRESULT           StgCreateDocfile([in] ULONG nObjectClassification,
                                [in, unique, string] const
OLECHAR *pwcsName,
                                [in] DWORD grfMode,
                                [in] DWORD reserved,
                                [out] IStorage **ppstgOpen);

        HRESULT           OleCreate([in] ULONG nObjectClassification,
                                [in] REFCLSID rclsid,
                                [in] REFIID riid,
                                [in] DWORD renderopt,
                                [in, unique] FORMATETC *pFormatEtc,
                                [in] IOleClientSite *pClientSite,
                                [in] IStorage *pStg,
```

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```
                                    [out, iid_is(riid)] void **ppv);

    HRESULT             OleCreateFromData([in] ULONG nObjectClassification,
                                    [in] LPDATAOBJECT pSrcDataObj,
                                    [in] REFIID riid,
                                    [in] DWORD renderopt,
                                    [in, unique] LPFORMATETC
pFormatEtc,
                                    [in] LPOLECLIENTSITE
pClientSite,
                                    [in] LPSTORAGE pStg,
                                    [out, iid_is(riid)] void
**ppv);

    HRESULT             OleLoad([in] ULONG nObjectClassification,
                                    [in] IStorage *pStg,
                                    [in] REFIID riid,
                                    [in] IOleClientSite *pClientSite,
                                    [out, iid_is(riid)] void **ppv);

    HRESULT             CoRegisterClassObject([in] ULONG nObjectClassification,
                                    [in] REFCLSID rclsid,
                                    [in] LPUNKNOWN pUnk,
                                    [in] DWORD dwClsContext,
                                    [in] DWORD flags,
                                    [out] LPDWORD
lpdwRegister);

    HRESULT             StgCreateDocfileOnILockBytes([in] ULONG
nObjectClassification,
                                                            [in]
ILockBytes *plkbyt,
                                                            [in] DWORD
grfMode,
                                                            [in] DWORD
reserved,
                                                            [out]
IStorage **ppstgOpen);

    HRESULT             StgOpenStorage([in] ULONG nObjectClassification,
                                    [in, string] const OLECHAR
*pwcsName,
                                    [in] IStorage *pstgPriority,
                                    [in] DWORD grfMode,
                                    [in, unique] SNB snbExclude,
                                    [in] DWORD reserved,
                                    [out] IStorage **ppstgOpen);

    HRESULT             StgOpenStorageOnILockBytes([in] ULONG
nObjectClassification,
                                                            [in] ILockBytes
*plkbyt,
                                                            [in] IStorage
*pstgPriority,
                                                            [in] DWORD
grfMode,
```

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                                                                [in, unique] SNB
snbExclude,
                                                                [in] DWORD
reserved,
                                                                [out] IStorage
**ppstgOpen);

    HRESULT   StgOpenAsyncDocfileOnIFillLockBytes([in] ULONG nObjectClassification,

    [in] IFillLockBytes *pflb,

    [in] DWORD grfMode,

    [in] DWORD asyncFlags,

    [out] IStorage **ppstgOpen);

    HRESULT   StgGetIFillLockBytesOnILockBytes([in] ULONG nObjectClassification,
                                                                [in]
ILockBytes *pilb,
                                                                [out]
IFillLockBytes **ppflb);

    HRESULT   StgGetIFillLockBytesOnFile([in] ULONG nObjectClassification,
                                                                [in, string]
OLECHAR const *pwcsName,
                                                                [out]
IFillLockBytes **ppflb);

     HRESULT   BindMoniker([in] ULONG nObjectClassification,
                                        [in] LPMONIKER pmk,
                                        [in] DWORD grfOpt,
                                        [in] REFIID riid,
                                        [out, iid_is(riid)] void **ppvResult);

     HRESULT   CoGetObject([in] ULONG nObjectClassification,
                                        [in] LPCWSTR pszName,
                                        [in, unique] BIND_OPTS *pBindOptions,
                                        [in] REFIID riid,
                                        [out, iid_is(riid)] void **ppv);

     HRESULT   MkParseDisplayName([in] ULONG nObjectClassification,
                                        [in] LPBC pbc,
                                        [in] LPCOLESTR szUserName,
                                        [out] ULONG *pchEaten,
                                        [out] LPMONIKER *ppmk);

     HRESULT   MonikerRelativePathTo([in] ULONG nObjectClassification,
                                        [in] LPMONIKER pmkSrc,
                                        [in] LPMONIKER pmkDest,
                                        [out] LPMONIKER *ppmk,
                                        [in] BOOLEAN
dwReserved);

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```
        HRESULT                 MonikerCommonPrefixWith([in] ULONG
nObjectClassification,
                                              [in] LPMONIKER
pmkThis,
                                              [in] LPMONIKER
pmkOther,
                                              [out] LPMONIKER
*ppmk);

        HRESULT                 CreateBindCtx([in] ULONG nObjectClassification,
                                        [in] DWORD reserved,
                                        [out] LPBC *ppbc);

        HRESULT                 CreateGenericComposite([in] ULONG nObjectClassification,
                                              [in] LPMONIKER
pmkFirst,
                                              [in] LPMONIKER pmkRest,
                                              [out] LPMONIKER *ppmk);

        HRESULT                 CreateClassMoniker([in] ULONG nObjectClassification,
                                              [in] REFCLSID rclsid,
                                              [out] LPMONIKER *ppmk);

        HRESULT                 CreateFileMoniker([in] ULONG nObjectClassification,
                                              [in] LPCOLESTR lpszPathName,
                                              [out] LPMONIKER *ppmk);

        HRESULT                 CreateItemMoniker([in] ULONG nObjectClassification,
                                              [in] LPCOLESTR lpszDelim,
                                              [in] LPCOLESTR lpszItem,
                                              [out] LPMONIKER *ppmk);

        HRESULT                 CreateAntiMoniker([in] ULONG nObjectClassification,
                                              [out] LPMONIKER *ppmk);

        HRESULT                 CreatePointerMoniker([in] ULONG nObjectClassification,
                                              [in] LPUNKNOWN punk,
                                              [out] LPMONIKER *ppmk);

        HRESULT                 GetRunningObjectTable([in] ULONG nObjectClassification,
                                              [in] DWORD reserved,
                                              [out]
LPRUNNINGOBJECTTABLE *pprot);

        HRESULT                 CreateDataAdviseHolder([in] ULONG nObjectClassification,
                                              [out]
LPDATAADVISEHOLDER* ppDAHolder);

        HRESULT                 OleCreateEx([in] ULONG nObjectClassification,
                                        [in] REFCLSID rclsid,
                                        [in] REFIID riid,
                                        [in] DWORD dwFlags,
                                        [in] DWORD renderopt,
                                        [in] ULONG cFormats,
                                        [in, unique, size_is(cFormats)] DWORD*
rgAdvf,
```

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```
                                        [in, unique, size_is(cFormats)]
LPFORMATETC rgFormatEtc,
                                        [in] IAdviseSink* lpAdviseSink,
                                        [out, size_is(cFormats)] DWORD*
rgdwConnection,
                                        [in] LPOLECLIENTSITE pClientSite,
                                        [in] LPSTORAGE pStg,
                                        [out, iid_is(riid)] void **ppv);

        HRESULT            OleCreateFromDataEx([in] ULONG nObjectClassification,
                                        [in] LPDATAOBJECT
pSrcDataObj,
                                        [in] REFIID riid,
                                        [in] DWORD dwFlags,
                                        [in] DWORD renderopt,
                                        [in] ULONG cFormats,
                                        [in, unique,
size_is(cFormats)] DWORD* rgAdvf,
                                        [in, unique,
size_is(cFormats)]
                                        LPFORMATETC rgFormatEtc,
                                        [in] IAdviseSink*
lpAdviseSink,
                                        [out, size_is(cFormats)]
DWORD* rgdwConnection,
                                        [in] LPOLECLIENTSITE
pClientSite,
                                        [in] LPSTORAGE pStg,
                                        [out, iid_is(riid)] void
**ppv);

        HRESULT            OleCreateLinkFromData([in] ULONG nObjectClassification,
                                        [in] LPDATAOBJECT
pSrcDataObj,
                                        [in] REFIID riid,
                                        [in] DWORD renderopt,
                                        [in, unique] LPFORMATETC
pFormatEtc,
                                        [in] LPOLECLIENTSITE
pClientSite,
                                        [in] LPSTORAGE pStg,
                                        [out, iid_is(riid)] void
**ppv);

        HRESULT            OleCreateLinkFromDataEx([in] ULONG
nObjectClassification,
                                        [in] LPDATAOBJECT
pSrcDataObj,
                                        [in] REFIID riid,
                                        [in] DWORD dwFlags,
                                        [in] DWORD
renderopt,
                                        [in] ULONG cFormats,
                                        [in, unique,
size_is(cFormats)] DWORD* rgAdvf,
                                        [in, unique,
size_is(cFormats)]
```

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rgFormatEtc,

lpAdviseSink,

size_is(cFormats)] DWORD* rgdwConnection,

pClientSite,

void **ppv);

    HRESULT   OleCreateStaticFromData([in] ULONG
nObjectClassification,

pSrcDataObj,

renderopt,

LPFORMATETC pFormatEtc,

pClientSite,

void **ppv);

    HRESULT   OleCreateLink([in] ULONG nObjectClassification,
                  [in] LPMONIKER pmkLinkSrc,
                  [in] REFIID riid,
                  [in] DWORD renderopt,
                  [in, unique] LPFORMATETC
lpFormatEtc,

                  [in] LPOLECLIENTSITE pClientSite,
                  [in] LPSTORAGE pStg,
                  [out, iid_is(riid)] void **ppv);

    HRESULT   OleCreateLinkEx([in] ULONG nObjectClassification,
                  [in] LPMONIKER pmkLinkSrc,
                  [in] REFIID riid,
                  [in] DWORD dwFlags,
                  [in] DWORD renderopt,
                  [in] ULONG cFormats,
                  [in, unique, size_is(cFormats)]
DWORD* rgAdvf,

                  [in, unique, size_is(cFormats)]
LPFORMATETC rgFormatEtc,

                  [in] IAdviseSink* lpAdviseSink,
                  [out, size_is(cFormats)] DWORD*
rgdwConnection,

                  [in] LPOLECLIENTSITE
pClientSite,

                  [in] LPSTORAGE pStg,
                  [out, iid_is(riid)] void **ppv);

    HRESULT   OleCreateLinkToFile([in] ULONG nObjectClassification,

LPFORMATETC

    [in] IAdviseSink*

    [out,

    [in] LPOLECLIENTSITE

    [in] LPSTORAGE pStg,
    [out, iid_is(riid)]

    [in] LPDATAOBJECT

    [in] REFIID riid,
    [in] DWORD

    [in, unique]

    [in] LPOLECLIENTSITE

    [in] LPSTORAGE pStg,
    [out, iid_is(riid)]

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```
                                          [in] LPCOLESTR
lpszFileName,
                                          [in] REFIID riid,
                                          [in] DWORD renderopt,
                                          [in, unique] LPFORMATETC
lpFormatEtc,
                                          [in] LPOLECLIENTSITE
pClientSite,
                                          [in] LPSTORAGE pStg,
                                          [out, iid_is(riid)] void
**ppv);

        HRESULT          OleCreateLinkToFileEx([in] ULONG nObjectClassification,
                                          [in] LPCOLESTR
lpszFileName,
                                          [in] REFIID riid,
                                          [in] DWORD dwFlags,
                                          [in] DWORD renderopt,
                                          [in] ULONG cFormats,
                                          [in, unique,
size_is(cFormats)] DWORD* rgAdvf,
                                          [in, unique,
size_is(cFormats)]

                                          LPFORMATETC rgFormatEtc,
                                          [in] IAdviseSink*
lpAdviseSink,
                                          [out, size_is(cFormats)]
DWORD* rgdwConnection,
                                          [in] LPOLECLIENTSITE
pClientSite,
                                          [in] LPSTORAGE pStg,
                                          [out, iid_is(riid)] void
**ppv);

        HRESULT          OleCreateFromFile([in] ULONG nObjectClassification,
                                          [in] REFCLSID rclsid,
                                          [in] LPCOLESTR lpszFileName,
                                          [in] REFIID riid,
                                          [in] DWORD renderopt,
                                          [in, unique] LPFORMATETC
lpFormatEtc,
                                          [in] LPOLECLIENTSITE
pClientSite,
                                          [in] LPSTORAGE pStg,
                                          [out, iid_is(riid)] void
**ppv);

        HRESULT          OleCreateFromFileEx([in] ULONG nObjectClassification,
                                          [in] REFCLSID rclsid,
                                          [in] LPCOLESTR
lpszFileName,
                                          [in] REFIID riid,
                                          [in] DWORD dwFlags,
                                          [in] DWORD renderopt,
                                          [in] ULONG cFormats,
                                          [in, unique,
size_is(cFormats)] DWORD* rgAdvf,
```

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```
                                                    [in, unique,
size_is(cFormats)]
                                                    LPFORMATETC rgFormatEtc,
                                                    [in] IAdviseSink*
lpAdviseSink,
                                                    [out, size_is(cFormats)]
DWORD* rgdwConnection,
                                                    [in] LPOLECLIENTSITE
pClientSite,
                                                    [in] LPSTORAGE pStg,
                                                    [out, iid_is(riid)] void
**ppv);

        HRESULT            OleLoadFromStream([in] ULONG nObjectClassification,
                                            [in] LPSTREAM pStm,
                                            [in] REFIID riid,
                                            [out, iid_is(riid)] void
**ppv);

        HRESULT            OleGetClipboard([in] ULONG nObjectClassification,
                                           [out] LPDATAOBJECT* ppDataObj);

        HRESULT            CreateOleAdviseHolder([in] ULONG nObjectClassification,
                                                 [out] LPOLEADVISEHOLDER*
ppOAHolder);

        HRESULT            OleCreateDefaultHandler([in] ULONG
nObjectClassification,
                                                    [in] REFCLSID clsid,
                                                    [in] LPUNKNOWN
pUnkOuter,
                                                    [in] REFIID riid,
                                                    [out, iid_is(riid)]
void **ppObj);

        HRESULT            OleCreateEmbeddingHelper([in] ULONG
nObjectClassification,
                                                    [in] REFCLSID
clsid,
                                                    [in] LPUNKNOWN
pUnkOuter,
                                                    [in] DWORD flags,
                                                    [in] LPCLASSFACTORY
pCF,
                                                    [in] REFIID riid,
                                                    [out, iid_is(riid)]
void **ppObj);

        HRESULT            OleRegEnumFormatEtc([in] ULONG nObjectClassification,
                                               [in] REFCLSID clsid,
                                               [in] DWORD dwDirection,
                                               [out] LPENUMFORMATETC*
ppenum);

        HRESULT            OleRegEnumVerbs([in] ULONG nObjectClassification,
                                           [in] REFCLSID clsid,
                                           [out] LPENUMOLEVERB* ppenum);
```

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```
};

///////////////////////////////////////////////////////// Logger Interfaces.
//
interface ICoignLogger;
interface ICoignLoggerObject;
interface ICoignLoggerInterface;

enum {
    ECoignFid_Application                           = 9000,
    ECoignFid_System                                = 9001,

    ECoignFidCoGetClassObject                       = 9002,
    ECoignFidCoGetInstanceFromFile                  = 9003,
    ECoignFidCoGetInstanceFromIStorage         = 9004,
    ECoignFidStgCreateDocfile                       = 9005,
    ECoignFidCoCreateInstanceEx                     = 9006,
    ECoignFidCoRegisterClassObject                  = 9008,
    ECoignFidStgCreateDocfileOnILockBytes      = 9009,
    ECoignFidStgOpenStorage                         = 9010,
    ECoignFidStgOpenStorageOnILockBytes        = 9011,
    ECoignFidStgOpenAsyncDocfileOnIFillLockBytes   = 9012,
    ECoignFidStgGetIFillLockBytesOnILockBytes      = 9013,
    ECoignFidStgGetIFillLockBytesOnFile        = 9014,
    ECoignFidBindMoniker                            = 9015,
    ECoignFidCoGetObject                            = 9016,
    ECoignFidMkParseDisplayName                     = 9017,
    ECoignFidMonikerRelativePathTo                  = 9018,
    ECoignFidMonikerCommonPrefixWith           = 9019,
    ECoignFidCreateBindCtx                          = 9020,
    ECoignFidCreateGenericComposite                 = 9021,
    ECoignFidCreateClassMoniker                     = 9022,
    ECoignFidCreateFileMoniker                      = 9023,
    ECoignFidCreateItemMoniker                      = 9024,
    ECoignFidCreateAntiMoniker                      = 9025,
    ECoignFidCreatePointerMoniker              = 9026,
    ECoignFidGetRunningObjectTable                  = 9027,
    ECoignFidCreateDataAdviseHolder                 = 9028,
    ECoignFidOleCreate                                  = 9029,
    ECoignFidOleCreateEx                            = 9030,
    ECoignFidOleCreateFromData                      = 9031,
    ECoignFidOleCreateFromDataEx               = 9032,
    ECoignFidOleCreateLinkFromData                  = 9033,
    ECoignFidOleCreateLinkFromDataEx           = 9034,
    ECoignFidOleCreateStaticFromData           = 9035,
    ECoignFidOleCreateLink                          = 9036,
    ECoignFidOleCreateLinkEx                        = 9037,
    ECoignFidOleCreateLinkToFile               = 9038,
    ECoignFidOleCreateLinkToFileEx                  = 9039,
    ECoignFidOleCreateFromFile                      = 9040,
    ECoignFidOleCreateFromFileEx               = 9041,
    ECoignFidOleLoad                                = 9042,
    ECoignFidOleLoadFromStream                      = 9043,
    ECoignFidOleGetClipboard                        = 9044,
    ECoignFidCreateOleAdviseHolder                  = 9045,
    ECoignFidOleCreateDefaultHandler           = 9046,
    ECoignFidOleCreateEmbeddingHelper          = 9047,
```

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```
        ECoignFidOleRegEnumFormatEtc                        = 9048,
        ECoignFidOleRegEnumVerbs                              = 9049,
        ECoignFidOleCreateFontIndirect                       = 9050,
        ECoignFidOleCreatePictureIndirect           = 9051,
        ECoignFidOleLoadPicture                              = 9052,
        ECoignFidOleLoadPicturePath                          = 9053,
        ECoignFidOleLoadPictureFile                          = 9054,
        ECoignFidCoCreateInstance                            = 9055,


        ECoignFixMaximumValue
};

[object, local, uuid(9ceeb060-e415-11d0-98d1-006097b010e3),
pointer_default(unique)]
interface ICoignLogger : IUnknown
{
        HRESULT                 Reset();
        HRESULT                 Flush();

        HRESULT                 EnableRecord();
        HRESULT                 DisableRecord();
        HRESULT                 TestRecord();

        HRESULT                 LogExtraData([in] const CLSID *pClsid,
                                         [in, size_is(cbData)] BYTE *pbData,
                                         [in] ULONG cbData);

        HRESULT                 CreateThread([out] ULONG *pnThreadToken);
        HRESULT                 DeleteThread([in] ULONG nThreadToken);

        HRESULT                 CreateObject([in] ULONG nThreadToken,
                                         [in] ULONG nCreatorObjectToken,
                                         [in] ULONG nCoignFid,
                                         [in] ULONG nObjectClassification,
                                         [in] const CLSID *pClsid,
                                         [out] ULONG *pnObjectToken);
        HRESULT                 DeleteObject([in] ULONG nThreadToken,
                                         [in] ULONG nObjectToken);
        HRESULT                 SetObjectClass([in] ULONG nObjectToken,
                                            [in] const CLSID *pClsid);
        HRESULT                 SetObjectConstraint([in] ULONG nObjectToken,
                                                [in] ULONG
nObjectConstraint);

        HRESULT                 CreateInterface([in] ULONG nThreadToken,
                                            [in] ULONG nObjectToken,
                                            [in] ULONG nInterfaceType,
                                            [out] ULONG *pnInterfaceToken);
        HRESULT                 DeleteInterface([in] ULONG nThreadToken,
                                            [in] ULONG nObjectToken,
                                            [in] ULONG nInterfaceToken);
        HRESULT                 SetInterfaceConstraint([in] ULONG nThreadToken,
                                                    [in] ULONG
nCallerObjectToken,
                                                    [in] ULONG
nObjectToken,
```

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```
                                                   [in] ULONG
nInterfaceToken,
                                                   [in] ULONG
nInterfaceConstraint);

        HRESULT              Enter([in] ULONG nThreadToken,
                                   [in] ULONG nCallerObjectToken,
                                   [in] ULONG nObjectToken,
                                   [in] ULONG nInterfaceToken,
                                   [in] ULONG nFunction,
                                   [out] ULONG *pnCallToken,
                                   [out] LONGLONG *pllEnterCycle);
        HRESULT              Leave([in] ULONG nThreadToken,
                                   [in] ULONG nObjectToken,
                                   [in] ULONG nInterfaceToken,
                                   [in] ULONG nCallToken,
                                   [in] ULONG nInBytes,
                                   [in] ULONG nInUncertainty,
                                   [in] ULONG nOutBytes,
                                   [in] ULONG nOutUncertainty,
                                   [in] LONGLONG llEnterCycle,
                                   [in] LONGLONG llInnerCycles,
                                   [in] HRESULT hrResult,
                                   [out] LONGLONG *pllOuterCycles);

        HRESULT              LoadModule([in] ULONG dwBeg,
                                   [in] ULONG dwEnd,
                                   [in, string] OLECHAR *pwszModule,
                                   [out] ULONG *pnModuleToken);
        HRESULT              SetObjectModule([in] ULONG nObjectToken,
                                             [in] ULONG nModuleToken);
};

///////////////////////////////////////////////////////////////////////////////
//
[object, local, uuid(9ceeb071-e415-11d0-98d1-006097b010e3),
pointer_default(unique)]
interface ICoignObjectClassifier : IUnknown
{
        HRESULT              GetObjectClassification([in] ULONG nFunctionId,
                                             [in] ULONG nHistoryRecords,

[in,unique,size_is(nHistoryRecords)]
                                             const CCallHistory *pHistory,
                                             [in,unique] const CLSID
*pClsid,
                                             [out] ULONG
*pnObjectClassification);
};

[object, local, uuid(9ceeb080-e415-11d0-98d1-006097b010e3),
pointer_default(unique)]
interface ICoignInterfaceCallback : IUnknown
{
        HRESULT              IncomingInterface([in] ULONG nObjectCallbackToken,
                                             [in] const IID *pIid,
                                             [in,out] PVOID *ppv);
```

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```
        HRESULT              OutgoingInterface([in] ULONG nObjectCallbackToken,
                                               [in] const IID *pIid,
                                               [in,out] PVOID *ppv);
};

[object, local, uuid(9ceeb081-e415-11d0-98d1-006097b010e3),
pointer_default(unique)]
interface ICoignInterfaceInformer : IUnknown
{
        HRESULT              IsValidInterface([in] ULONG nInterfaceTypeToken);

        HRESULT              GetInterfaceInfo([in] const IID *pIid,
                                                      [out] ULONG
*pnInterfaceTypeToken);

        HRESULT              SetInterfaceCallback([in] ICoignInterfaceCallback
*pCallback);

        HRESULT              IsExtension([in] ULONG nBaseInterfaceTypeToken,
                                        [in] ULONG nInterfaceTypeToken);

        HRESULT              GetInterfaceDescription([in] ULONG nInterfaceTypeToken,
                                                             [out,
size_is(nMaxSize),string] OLECHAR *pwzName,
                                                             [in] ULONG
nMaxSize);

        HRESULT              GetInterfaceIID([in] ULONG nInterfaceTypeToken,
                                            [out] const IID **ppIid);

        HRESULT              SizeIncomingDataLocal([in] ULONG nObjectCallbackToken,
                                                         [in] ULONG
nInterfaceTypeToken,
                                                         [in] ULONG
nMemberFunction,
                                                         [in] ULONG
*pStackPointer,
                                                         [in] ULONG *pStackFrame,
                                                         [out] ULONG
*pnFrameSize,
                                                         [out] ULONG *pnDataSize,
                                                         [out] ULONG
*pnUncertainty);

        HRESULT              SizeIncomingDataRemote([in] ULONG nObjectCallbackToken,
                                                         [in] ULONG
nInterfaceTypeToken,
                                                         [in] ULONG
nMemberFunction,
                                                         [in] ULONG
*pStackPointer,
                                                         [in] ULONG
*pStackFrame,
                                                         [out] ULONG
*pnThunkAddr,
```

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```
                                                   [out] ULONG
*pnFrameSize,
                                                   [out] ULONG
*pnDataSize,
                                                   [out] ULONG
*pnUncertainty);

        HRESULT         SizeOutgoingDataLocal([in] ULONG nObjectCallbackToken,
                                              [in] ULONG
nInterfaceTypeToken,
                                              [in] ULONG
nMemberFunction,
                                              [in] ULONG
*pStackPointer,
                                              [in] ULONG *pStackFrame,
                                              [out] ULONG
*pnFrameSize,
                                              [out] ULONG *pnDataSize,
                                              [out] ULONG
*pnUncertainty);

        HRESULT         SizeOutgoingDataRemote([in] ULONG nObjectCallbackToken,
                                               [in] ULONG
nInterfaceTypeToken,
                                               [in] ULONG
nMemberFunction,
                                               [in] ULONG
*pStackPointer,
                                               [in] ULONG
*pStackFrame,
                                               [out] ULONG
*pnFrameSize,
                                               [out] ULONG
*pnDataSize,
                                               [out] ULONG
*pnUncertainty);
};

[object, local, uuid(9ceeb090-e415-11d0-98d1-006097b010e3),
pointer_default(unique)]
interface ICoignInternalInterface : IUnknown
{
};

[object, local, uuid(9ceeb091-e415-11d0-98d1-006097b010e3),
pointer_default(unique)]
interface ICoignUnknownInterface : IUnknown
{
};

[object, local, uuid(9ceeb092-e415-11d0-98d1-006097b010e3),
pointer_default(unique)]
interface ICoignConstraintInterface : IUnknown
{
};

///////////////////////////////////////////////////////////////// Classes.
```

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```
//
#endif       // _COIGNIDL_IDL_
```

```
//
#endif       // _COIGNIDL_IDL_
```